IN THE CLAIMS

Claims 1 through 3 (cancelled)

Claim 4 (currently amended) ~~The method of claim 3,~~ A method of changing a physical property of a structure, comprising:

indent providing a first energy to a structure by performing a first energy process according to an operational setting, at least one of the operational setting and a time value being selected according to a first order rate relationship for the first energy process, according to a first order rate relationship for a second energy process, and according to a desired physical property value; and

indent providing a second energy to the structure by performing the second energy process;

indent wherein the first and second energy processes are performed concurrently for at least the time value;

indent wherein the first order rate relationship for the first energy process relates application of the first energy to the structure and a physical property of the structure;

indent wherein the first order rate relationship for the second energy process relates application of the second energy to the structure and the physical property;

indent wherein the first and second energies are different;

indent wherein the total energy provided to the structure by the first and second energy processes is above an activation energy for the material of the structure;

indent wherein the first energy is thermal and wherein the second energy is oscillatory;

indent wherein the operational setting is a temperature setting, wherein one of the temperature setting and the time value is selected according to the first order rate relationship for the first energy process, according to the first order rate relationship for the second energy process, according to the desired physical property value, and according to the other one of the temperature setting and the time value; and

indent wherein the first order rate relationship for the first energy process is a first Larson Miller relationship that relates application of thermal energy to the structure and the physical property, and wherein the first order rate relationship for the second energy process is a second Larson Miller relationship that relates application of oscillatory energy to the structure and the physical property.

Claim 5 (currently amended) The method of claim 4, further comprising:

determining a first Larson Miller parameter according to the first Larson Miller relationship, the first Larson Miller parameter corresponding to the desired physical property value;

determining a second Larson Miller parameter according to the second Larson Miller relationship, the second Larson Miller parameter corresponding to the desired physical property value;

selecting a first one of the temperature setting and the time value;

selecting a second one of the temperature setting and the time value according to the first and second Larson Miller parameters, according to the first Larson Miller relationship, and according to the first one of the temperature setting and the time value.

Claim 6 (original) The method of claim 5, further comprising determining a third Larson Miller parameter according to the first and second Larson Miller parameters, wherein the second one of the temperature setting and the time value is selected according to the third Larson Miller parameter, according to the first Larson Miller relationship, and according to the first one of the temperature setting and the time value.

Claim 7 (original) The method of claim 6, wherein determining the third Larson Miller parameter comprises subtracting the second Larson Miller parameter from the first Larson Miller parameter.

Claim 8 (original) The method of claim 7, wherein selecting the second one of the temperature setting and the time value comprises evaluating the first Larson Miller relationship using the third Larson Miller parameter and the first one of the temperature setting and the time value to obtain the second one of the temperature setting and the time value.

Claim 9 (original) The method of claim 4, wherein the physical property is internal stress, and wherein the desired physical property value is one of a remaining internal stress value and an internal stress reduction value.

Claim 10 (cancelled)

Claim 11 (currently amended) ~~The method of claim 1,~~ A method of changing a physical property of a structure, comprising:

    providing a first energy to a structure by performing a first energy process according to an operational setting, at least one of the operational setting and a time value being selected according to a first order rate relationship for the first energy process, according to a first order rate relationship for a second energy process, and according to a desired physical property value; and

    providing a second energy to the structure by performing the second energy process;

    wherein the first and second energy processes are performed concurrently for at least the time value;

    wherein the first order rate relationship for the first energy process relates application of the first energy to the structure and a physical property of the structure;

    wherein the first order rate relationship for the second energy process relates application of the second energy to the structure and the physical property;

    wherein the first and second energy are different;

    wherein the total energy provided to the structure by the first and second energy processes is above an activation energy for the material of the structure; and

    wherein the first order rate relationship for the first energy process is a first Larson Miller relationship that relates application of the first energy to the structure and the physical property, and wherein the first order rate relationship for the second energy process is a second Larson Miller relationship that relates application of the second energy to the structure and the physical property.

Claim 12 (original) The method of claim 11, further comprising:

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determining a first Larson Miller parameter according the first Larson Miller relationship, the first Larson Miller parameter corresponding to the desired physical property value;

determining a second Larson Miller parameter according to the second Larson Miller relationship, the second Larson Miller parameter corresponding to the desired physical property value;

selecting a first one of the operational setting and the time value;

selecting a second one of the operational setting and the time value according to the first and second Larson Miller parameters, according to the first Larson Miller relationship, and according to the first one of the operational setting and the time value.

Claim 13 (original) The method of claim 12, further comprising determining a third Larson Miller parameter by subtracting the second Larson Miller parameter from the first Larson Miller parameter, wherein the second one of the operational setting and the time value is selected according to the third Larson Miller parameter, according to the first Larson Miller relationship, and according to the first one of the operational setting and the time value.

Claim 14 (original) The method of claim 13, wherein selecting the second one of the operational setting and the time value comprises evaluating the first Larson Miller relationship using the third Larson Miller parameter and the first one of the operational setting and the time value to obtain the second one of the operational setting and the time value.

Claims 15 through 18 (cancelled)

Claim 19 (currently amended) ~~The method of claim 18.~~ A method of changing a physical property of a structure, comprising:

providing a first energy to a structure by performing a first energy process according to an operational setting;

providing a second energy to the structure by performing a second energy process;

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wherein the first and second energy processes are performed concurrently to provide energy above an activation energy for the material of the structure for at least a time value;

wherein one of the operational setting and the time value are selected according to a desired physical property value and according to a first order rate relationship that relates concurrent application of the first and second energy to the structure and a physical property of the structure; and

further comprising determining the Larson Miller relationship that relates concurrent application of the first and second energy to the structure and the physical property of the structure.

Claim 20 (currently amended) A method of stress relieving a structure, comprising:

determining a first Larson Miller relationship that relates application of thermal energy to the structure and internal stress in the structure;

determining a second Larson Miller relationship that relates application of oscillatory energy to the structure and the internal stress in the structure;

determining a first Larson Miller parameter according to the first Larson Miller relationship and according to a desired internal stress value for the structure;

determining a second Larson Miller parameter according to the second Larson Miller relationship and according to the desired internal stress value;

determining a third Larson Miller parameter according to the first and second Larson Miller parameters by subtracting the second Larson Miller parameter from the first Larson Miller parameter;

selecting a first one of a temperature setting and a time value;

selecting a second one of the temperature setting and the time value according to the third Larson Miller parameter, according to the first Larson Miller relationship, and according to the first one of the temperature setting and the time value;

selecting one or more oscillatory operational settings;

providing thermal energy to the structure according to the thermal operational settings; and

concurrently providing oscillatory energy to the structure according to the oscillatory operational settings for a time greater than or equal to the time value.

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Claim 21 (previously presented) The method of claim 20, wherein selecting the second one of the temperature setting and the time value comprises solving a first Larson Miller equation for the second one of the temperature setting and the time value using the first one of the temperature setting and the time value and the third Larson Miller parameter, wherein the first Larson Miller equation represents the first Larson Miller relationship.

Claims 22 and 23 (cancelled)

Claim 24 (currently amended) ~~The method of claim 22.~~ A method of determining operational settings and time values for concurrent application of multiple energy forms to a structure to change a physical property of the structure, the method comprising:

 determining a first parameter according to a desired physical property value for the structure and according to a first order rate relationship for a first energy process that relates application of a first energy to the structure and the physical property;

 determining a second parameter according the desired physical property value and according to a first order rate relationship for a second energy process that relates application of a second energy to the structure and the physical property;

 selecting a first one of a time value and an operational setting for the first energy process; and

 selecting a second one of the time value and the operational setting according to the first and second parameters, according to the first order rate relationship for the first energy process, and according to the first one of the time value and the operational setting;

 wherein the first order rate relationship for the first energy process is a first Larson Miller relationship that relates application of the first energy to the structure and the physical property, and wherein the first order rate relationship for the second energy process is a second Larson Miller relationship that relates application of the second energy to the structure and the physical property.

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Claims 25 through 39 (cancelled)